Remarks

By this amendment, Claims 1, 6, 7 and 9 are amended. Claims 2-5, 8 and 10-14 are canceled. Claim 15 is new. Support for claim 15 may be found, for example, on page 7, lines 19- 26. Claim 1, 6, 7, 9 and 15 are pending in this application. No issue of new matter arises.

Response to 35 U.S.C. § 112, second paragraph requirement

Claims 1, 6-7 and 9 are rejected under this section as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention.

In response to the Examiner's rejection, Applicants amended claim 1 to now that a decrease in phosphorylation activity of Src is indicative of a therapeutic compound for the treatment of Alzheimer's disease. The antecedent basis for "said Src" has also been corrected.

Withdrawal of this rejection is respectfully requested.

Response to 35 U.S.C. § 102(b) requirement

Claims 1 and 9 are rejected under this section as being anticipated by Williamson et al. Applicants respectfully traverse this rejection.

Williamson et al teaches that in response to amyloid β-peptide (Aβ), primary human and rat cortical cultures shown an increase in the tyrosine phosphorylation content of the neuronal proteins examined. The tyrosine phosphorylation was blocked the addition of the Src family inhibitor PP2.

Williamson et al differs from the claimed invention in the following way. While Williamson teaches the results of phosphorylation in response to a non-physiologic amount (10μM) of an amyloid β peptide, called amyloid β peptide 25-35, the claimed invention screens for Src inhibitors that affect the processing of amyloid precursor protein (APP).

Accordingly, since the reference does not teach all the limitations in claim 1 and 9, Williamson et al is not an anticipatory reference. Withdrawal of this rejection is respectfully requested.

Response to 35 U.S.C. § 103 requirement

Claims 1, 6-7 and 9 are rejected under this section as being unpatentable over Williamson et al in view of UniProt accession number A43610 (sequence updated June 16, 2000). Applicants respectfully traverse this rejection.

Williamson et al teaches that in response to amyloid β-peptide (Aβ), primary human and rat cortical cultures shown an increase in the tyrosine phosphorylation content of the neuronal proteins examined. The tyrosine phosphorylation was blocked the addition of the Src family inhibitor PP2.

Williamson et al differs from the claimed invention in that Williamson measures phosphorylation in response to a non-physiologic amount (10μM) of an amyloid β peptide, called amyloid β peptide 25-35 whereas the claimed invention screens for Src inhibitors by measuring the phosphorylation activity on the processing of amyloid precursor protein (APP).

Moreover, the skilled artisan would not be motivated from the Williamson reference to substitute amyloid β-peptide 25-35 for APP since there is no teaching or suggestion to measure Src activity on APP. Williamson teaches an aggregated amyloid beta peptide 25-35 model that is not representative of the mechanism involved in Alzheimer's disease. It was only through Applicants' invention that a link was made between Src kinase activity for APP tyrosine phosphorylation and the processing of APP. Prior to Applicants' invention, it was believed that only Abl was responsible for tyrosine phosphorylation of APP which results in increased Aβ secretion.

Uniprot A43610 is the protein sequence of mouse Src protein derived from neurons. The reference is cited as a substitution for the rat Src protein taught in Williamson et al as claimed in instant claim 6. The reference does not teach or suggest screening for phosphorylation inhibitors of mouse Src activity on the processing of APP. Since the secondary reference does not provide or suggest to the skilled artisan to substitute the claimed APP for aggregated amyloid beta peptide 25-35 when measuring tyrosine phosphorylation after the addition of an inhibitor such as

PP2, a prima facie case of obviousness is not supported by the reference. Withdrawal of this rejection is believed to be in order and notice to that effect is respectfully requested.

The Applicants respectfully submit that the claims, as amended, are in condition for allowance, and remarks to fully respond the Office Action of, and respectfully request early, favorable action on the application. Should the Examiner believe that an interview would advance the prosecution of this application, the Applicants invite him to contact the undersigned at 908.231.3648.

Respectfully submitted,

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